

ABSTRACT OF THE DISCLOSURE

A control system for controlling the operation of an electric motor driven door or gate operator unit having a speed reducing gear drive mechanism and a brake unit for positive braking of the motor output shaft. A programmable  
5 microcontroller is operably connected to a motor drive circuit with interlock relays to energize the drive motor for rotation in opposite directions. The motor drive circuit is interconnected with a motor watchdog circuit to effect motor shutdown if the microcontroller malfunctions  
10 and a brake release circuit to prevent motor operation unless the brake is energized. The microcontroller is operable to store door mid-stop time delay values, braking rates, a door position limit overrun signal, a door cycle count, door reversals upon receiving an obstruction detector  
15 signal and error codes associated with door operator and control system malfunctions. The brake may be controlled on a variable duty cycle to provide smooth braking action in both directions of movement of the door.

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